Digital Wi-Fi Conference System

User Manual

TS-W102/W102A

Before using this system, please read this manual carefully

Notification

⚠ **WARNING**

To ensure the reliability of the equipment and the safety of personnel, please observe the following when installing, using and maintaining:

● If any of the following conditions are found, please immediately turn off the power, plug out and quickly contact your nearest dealer. Do not continue using this unit, which may cause a fire or electric shock.

- If you find smoke or have a strange taste from the machine.
- If water or metal falls into the machine.
- If the unit is dropped or the case is damaged.
- If the wire is damaged (wire core exposure, broken wire, etc.).

● If the machine contains high-pressure parts, in order to avoid the fire or electric shock, absolutely don't open the case, if any questions please inform your nearest dealer.

● Do not place cups, bowls, vases or metal and other water-filled substances on the unit. Serious spilled liquid may cause a fire or electric shock.

● Never expose the unit to rain and any moisture or water, which may cause electric shock or fire.

● Do not place metal objects or flammable materials from the vents on the machine cover, nor place coins, which may cause fire or electric shock.

● Do not place heavy objects on the unit to avoid personal injury or property damage when the unit is slipping.

● Make sure that the volume is turned on at the beginning of the boot, and the high volume of the boot may cause hearing problems.

● Make sure that the volume is turned on at the beginning of the boot, and the high volume of the boot may cause hearing problems.

● For long-term accumulation of dust to be cleaned, please inform your dealer to regularly clean the machine, so as to avoid damage to the machine or cause a fire.

● The battery must be replaced with the same type of product and the correct installation should be made in order to avoid electrical damage and explosion hazard.

● The product is a Class III device. The device must be well connected to ground. The power plug must be connected to a power outlet with a grounding device to ensure that the equipment is fully grounded.

● This product uses a power plug or appliance input socket as a disconnecting device with the power supply, and must be disconnected if necessary for safety reasons.

● This equipment is only suitable for safe use at altitudes under 2000 meters.

Precautions

1. The installation environment

When installing the unit, in order to ensure the normal cooling of the host, should avoid the poor ventilation of the place or high temperature environment, to avoid direct sunlight.

Recommend to install cabinet or other well-ventilated place indoor. If you use the machine in the outdoors, please pay attention to waterproof, moisture, lightning protection measures.

Avoid installing in a violent place of vibration; do not place other equipment on the machine.

2. To avoid electric shock and fire

Do not touch the hands and the source with wet hands

Do not spill liquid on the machine, so as to avoid short-circuit or fire inside the machine.

Do not place other equipment directly on the top of the unit.

Non-professional service personnel Do not disassemble the unit yourself to avoid damage and electric shock.

3. Transport and handling

The packaging of the machine is designed and tested to ensure that the host will not be accidentally damaged during transport. It is best to use the original packaging when handling the unit.

Do not move the host device between the place or cold or over hot to avoid condensation inside the machine, affecting equipment life.

4. Please follow the warning instructions on this product, the warning signs on behalf of:

	Applicable to 2000 meters above sea level and below safe use
	Safe use only in non-tropical climates

5. Agreement

Please strictly follow the instructions in this manual. The software, hardware and appearance of this product will be upgraded and updated continually. The above changes will be made without notice.

Non-professional maintenance personnel, do not remove the product, to avoid damage and electric shock.

6. Remarks

When TS-W102/102A are not used in a long time, please take out of the machine and charge full of electricity to avoid battery damage if store more than six months.

Content

1. System Introduction

WIFI Digital Conference System adopts ITC proprietary network communication and digital transmitting procession technology, which is applied with digital technology and network technology. The perfect match of WIFI conference system and Wired Digital Conference System brings breakthrough change to the conference industry.

2. Product Introduction

TS-W102/W102A
The second generation WIFI conference chairman unit/delegate unit

Function Features

1. Microphone adopts 48KHZ sampling rate, with clear and bright sound quality. It is built with DSP audio processing without any rushing sound.
2. It adopts advanced chip framework, with special processing algorithm and with only 5 seconds to power on microphone.
3. It is with intelligent fault detection function to remind any condition when AP fault, main controller communication fault and over low signal.
4. With Chinese-English switch function setting through PC software.
5. With simple Type-C to set up SSID and password function to ensure system extension without any connection error.

6. It is with speech timing and clocking functions.

7. With voice control function that it can be turned on intelligently. You can also adjust voice control sensitivity and set up on/off time by PC software.

8. With 5-section EQ adjusting function through PC software, it can adjust the sound effect of all microphones till perfect effect.

9. Through PC software setting, you can initiate to sign in.

10. It adopts 128-bit AES encryption technology, which supports WPA/WPA2 wireless safety technology to avoid any wiretapping or non-authorized visit and provides higher conference system confidentiality.

11. The wireless transmission technology reduces quite a lot of installation time.

12. The chairman unit has priority function to close any working delegate unit.

13. It is built with feedback inhibition to avoid any squeaking.

14. With lithium battery, the battery can work continually for 15 hours.

15. Built-in aerial, it improves WIFI network transmission efficiency.

16. You can upgrade the program and charge on line through Type-C.

Product parts function introduction
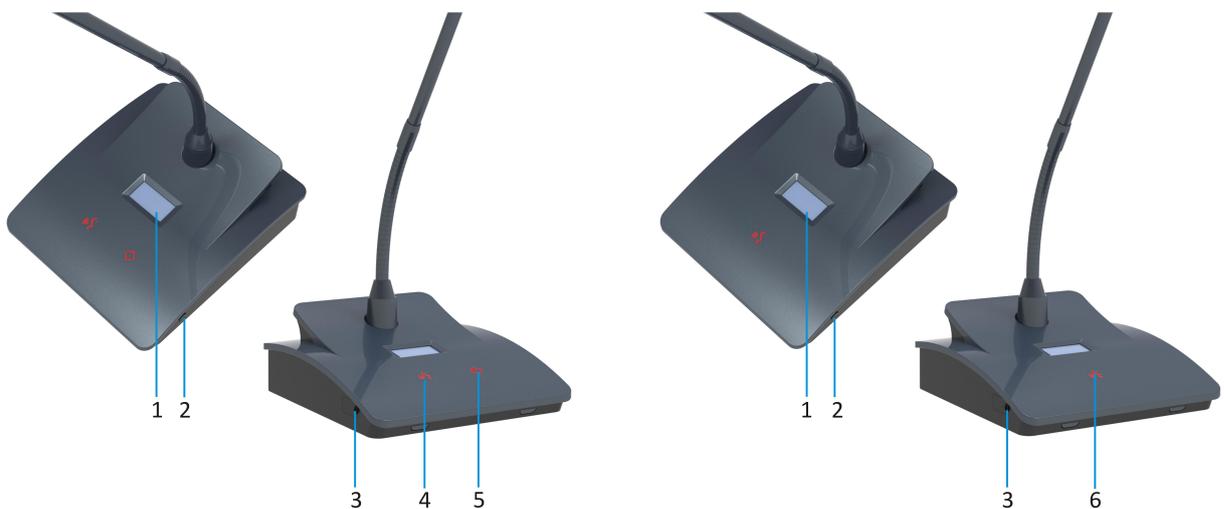
1. 0.96 inch OLED display.

2. Power switch button.

3. Charging interface.

4. Chairman unit mic button.

5. Chairman unit priority button.

6. Delegate unit button.

Technical parameter

Model Name	TS-W102/TS-W102A
Microphone Type	Cardiotype directivity electret
Frequency range	70Hz~12KHz
Sensitivity	-36±1.5dB
Max SPL	100dB(THD>3%)
Signal to Noise Ratio	>80dB(A)
Crosstalk	>70dB
Dynamic Range	>80dB
THD	<0.1%
Max Power Consumption	1W
Standards	IEC60914
Power Supply	18650 lithium battery power supply
Charging Mode	Charging through Type-C interface
Color	Gorgeous blue
Sign-in Function	Sign-in button
Display	OLED display
Measurement (L*W*H)	120*104*43mm
Installation method	Desktop
Wireless frequency range	5.15GHz~5.85GHz
Battery capacity	4800mAh
Weight	0.6 Kg
Speech mode working time	15 hours
Mixed mode working time	16 hours

3. System connection diagram

TS-W100

TS-234

Video camera

TS-W113

Power Amplifier

Computer

Speaker

TS-W113

Speaker

9 10 1 2 3 4 5 6 7 8

TS-W111 (The maximum number is 30)

TS-W101 TS-W101A ———————————— TS-W101 TS-W101A

TS-W101 TS-W101A ———————————— TS-W101 TS-W101A

TS-W102 TS-W102A ———————————— TS-W102 TS-W102A

TS-W102 TS-W102A ———————————— TS-W102 TS-W102A

TS-0221

TS-0203 TS-0203A —————————— TS-0203 TS-0203A

TS-0204 TS-0204A —————————— TS-0204 TS-0204A

TS-0670HY —————————— TS-0670HY
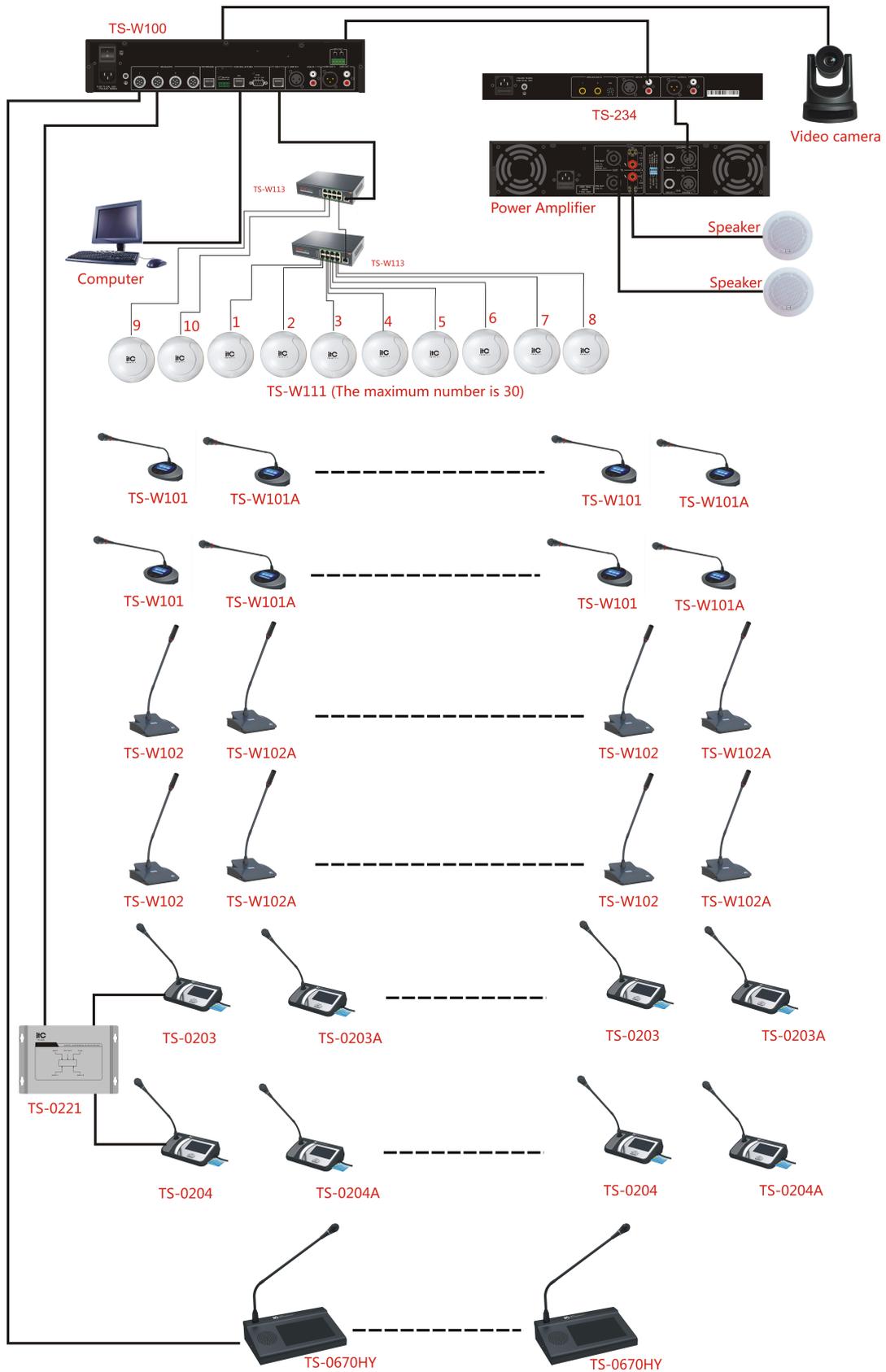
4. Operation instruction

1.Boot up and SSID setting

1)   Short press the power button to turn on.

2)   After turning on, short press the power button twice within three seconds to enter the SSID setting interface. (Note: The time interval between two short presses cannot exceed one second, otherwise it will be treated as invalid. For example, after turning on the machine, short press the power button, and short press again after more than one second, then the first time short press is invalid.)

3)   After entering the SSID setting interface, short press the microphone button to set the SSID, and short press the power button to confirm.

If there is no operation on this interface for five seconds, it will automatically exit and enter the normal procedure. In this interface, long press the power button to shut down.
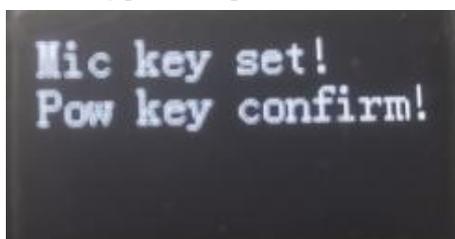
4)   Short press the microphone button to set the SSID. The initial SSID is "WIFI_System". Each short press of the microphone button will add one after "WIFI_System"; until "WIFI_System15", short press again will return to the initial SSID: " WIFI_System".
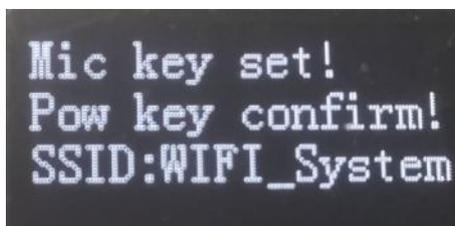
5)   Short press the power button to confirm the change of SSID. After the short press, there will be an interface prompt: SSID setup is successful! Restarting.... Just wait for the restart.
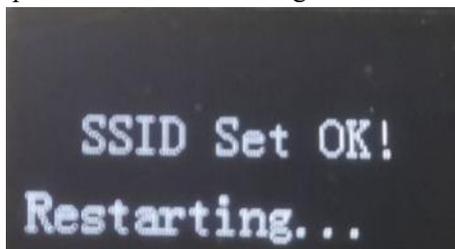
6)   If there is no operation of pressing the power button twice continuously within three seconds when the machine is turned on, you only need to wait for a period of time to enter the normal system.

If the SSID of current machine is different from the SSID of the AP that can be connected, it will take a few seconds to enter the normal system. After entering the system, it will display "Connecting to AP";

If the SSID of the current machine is the same as the SSID of the AP that can be connected, it will connect soon and enter the normal system.
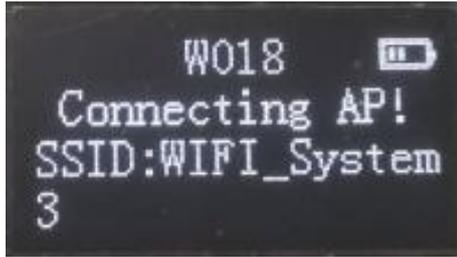
2.Meeting Management

The switch of all delegate units are controlled by the meeting management, including first in first out, apply, normal and voice control modes. Please refer to the meeting mode introduction when operation.

Press MIC switch button to power on the microphone and the mic lamp will turn to red color with "Mic on" on the display.
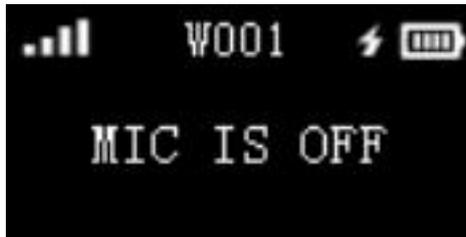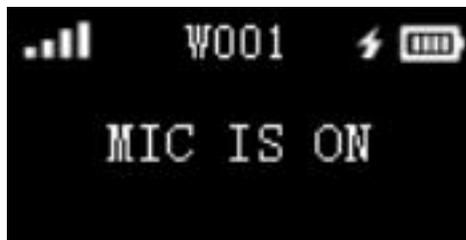
If the current mic is waiting to be turned on, the mic lamp will turn green.
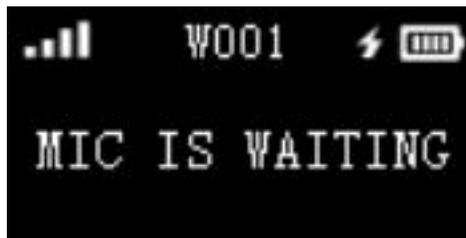
If the current mic is in apply mode, the mic lamp is green.
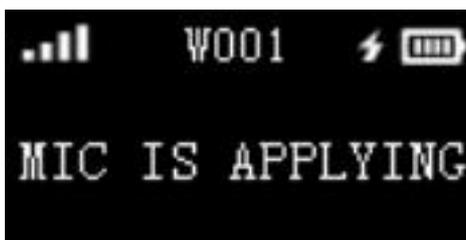
Attention: If you want to realize the approval function on the chairman unit, please add TS-W101 to make it.

Note: The approval function of the chairman unit needs to add a TS-W101 to realize.

If the current mic qty is full, the display will show "Mic qty is full".

```
.ıll        W001      ⚡ 🔋

        MIC IS FULL
```
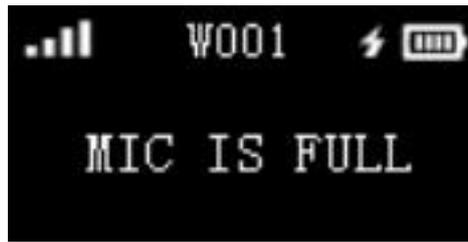
Press priority button on the chairman unit to close all delegate units, while the chairman unit lamp is red and delegate unit lamps is off.

3.Fire Alarm

When playing fire alarm message, there is "Fire Alarm" displayed on the delegate units with flashing mic lamp in red till fire alarm revoked. All buttons are out of work during fire alarm status.

```
.ıll        W001      ⚡ 🔋

        Fire Warning!
```
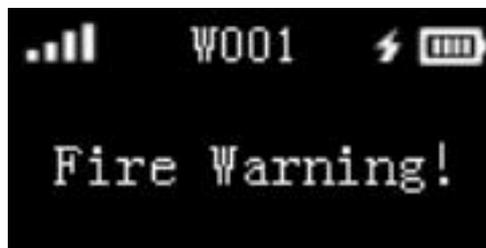
4.System Status Page

When powered on status and meeting mode, short-press power button to see about the SSID of AP and the version number of the machine.

```
.ıll        W001      ⚡ 🔋
SSID: WIFI_SYSTEM
_II
VER:1.0&0.8
```

5.WIFI AP Off-Line Detection Function

When AP power supply is turned off or AP network fault more than 10 seconds, dialog box will be prompt on the delegate unit display. If WIFI AP is working normally, delegate unit display will recover to home page.

```
.ıll        W001      ⚡ 🔋

        AP LOSE!
```
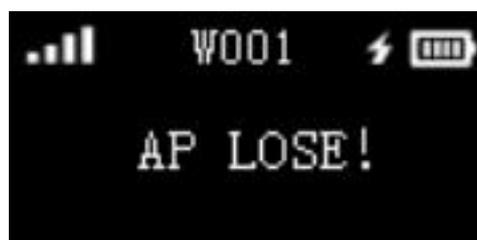
6. Main Controller Off-Line Detection Function

When turn off the main controller or main controller network fault for about 1 minute, "unusual connection" will be displayed on the delegate unit. If the main controller recovers normal working, delegate unit display will also recover to home page.
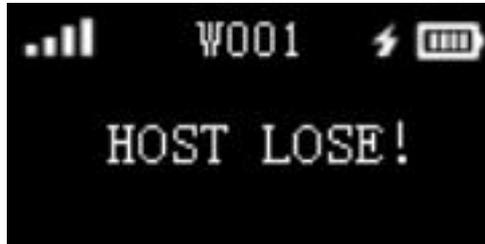
7.Repeated ID Detection

If the ID of the delegate unit is same as the main controller, "ID REPEATED" will displayed. You should re-edit a new ID in the main controller.
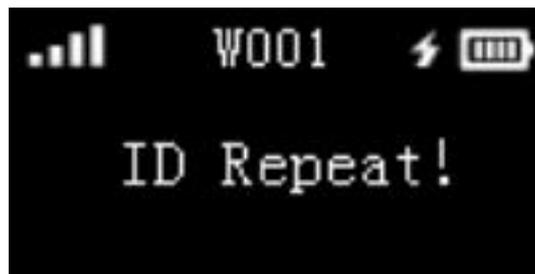
8.ID Edited Function

Press ID on the main controller to enter ID edited mode. Then press setting button or mic button to set up ID.
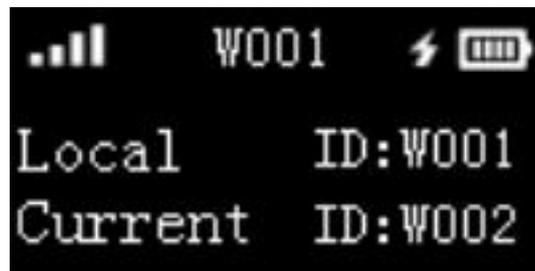
9.Charging input, battery level, WIFI signal indication

WIFI signal strength, totally 4 white bars. If no signal, there is no icon.

Full battery has 4 bars：.

The charging input icon is like this .

10. Automatically power off while low battery.

When the power is too low, WIFI delegate unit will remind with "Low Battery" and then shut off.
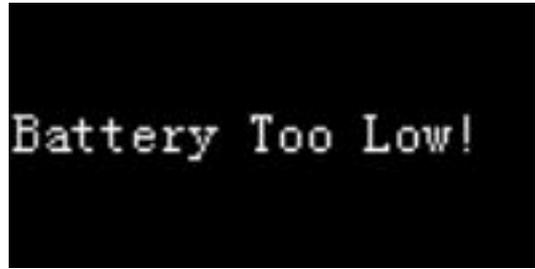
11.ON/OFF Switch Function

Short press button when powered off to turn on the machine.

Long press button for 3 seconds when powered on to turn off the machine. Short press button during conference mode to check SSID and version number.

12.Speech Timing and Clocking Function

When setting up speech timing via PC software, the display will show as below:
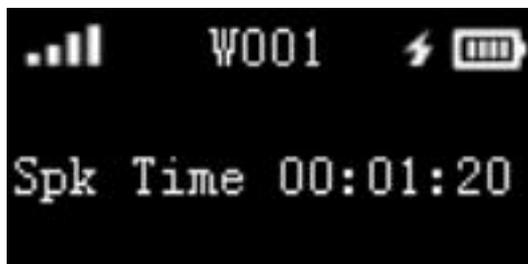
When setting up timed speech via PC software, the display will show as below:
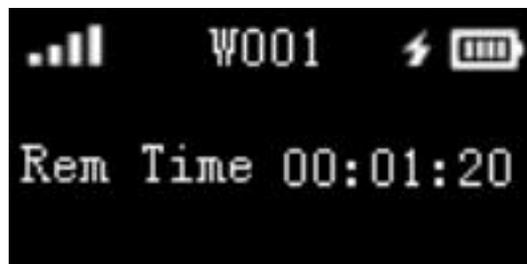
13.Sign-in mode display

When sign-in order sent from PC software or chairman unit, the delegate unit will enter sign-in mode. Under this sign-in mode, all un-signed mic lamp will be flashing as below image. Press mic

button to sign-in. After sign-in, the mic lamp will be turned on and mic button will recover to on/off switch function. Attention: under sign-in mode, if the current mic is in apply mode, the delegate unit will automatically short off apply status that could not enter apply status.
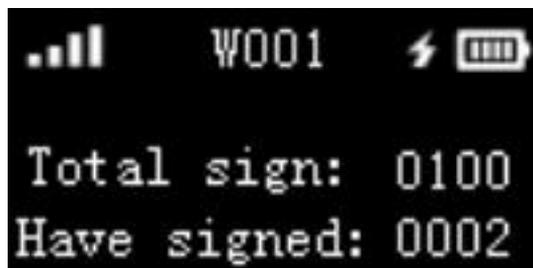
14.Voting mode display

When the PC enter voting mode or chairman unit launches voting order, all delegate units will enter voting mode. Under voting mode, there is no responding button so the unit could not be voting as below image. Attention: Under voting mode if the current mic in apply mode, the delegate unit will automatically short off apply status.
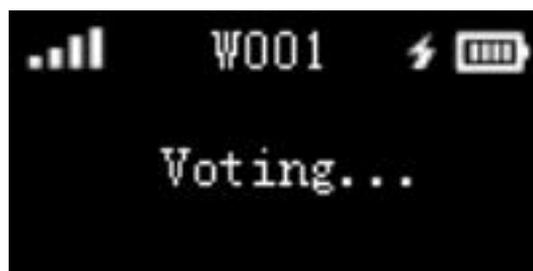
15.Over low signal reminder

When the delegate unit signal is too low that cannot work normally but still connected with AP, there will be reminder as below. After the signal reaches normal value, the delegate will recover working.
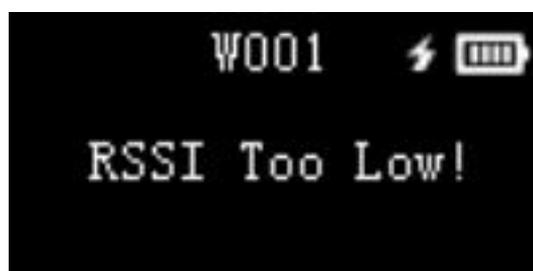
16.State message sent by PC software

Under conference mode, PC software will launch two state messages "You are wanted at the conference gate" or "You are wanted at the at the control center" on the display. Attention: These two state messages are fixed in the unit that cannot be changed manually.
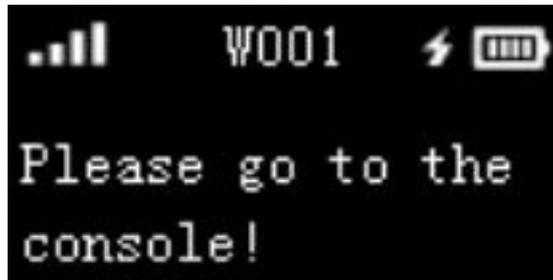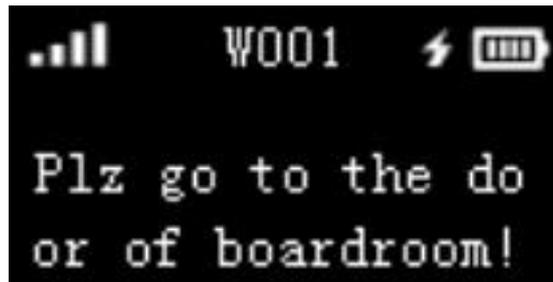
17.Language setting

You can change the language to Chinese or English via PC software.

5. Conference PC Software Instruction

Digital Conference System PC control software is powerful, easy to operate, including most of the functionality needed in meeting; it is designed according to meeting procedure sequence. Users only need to follow the principles from the top to the bottom of the left column.

The bottom column of the software shows the current host status, interpreter unit quantity, chairman unit quantity, delegate unit quantity, current computer time and other information. If there is microphone being plugged, lost connection, the quantity change will prompt up to alert the operator.

System Management Interface introduction: The information displayed on the left of System Management Interface is the four functional modules, including preparation before meeting, starting meeting, sorting material after meeting and system management.

Each of these modules also contains several small modules.

Preparations before meeting includes the sub-modules: venue design, conference management, personnel management, delegates, staff qualifying, electronic nameplate and sign cards, interpreter unit languages and projection edition.

Starting meeting includes the sub-modules: sign in control, agenda control, conference control;

Sorting material after meeting includes the sub-modules: data reporting, logging.

System management includes the sub-modules: user management, host configuration.

Due to the limited space in this manual, the specific operation of the digital conference system software instructions here is not mentioned in details, please refer to "ITC Digital Conference System Software User Manual".

Appendix

1. Microphone frequency response curve
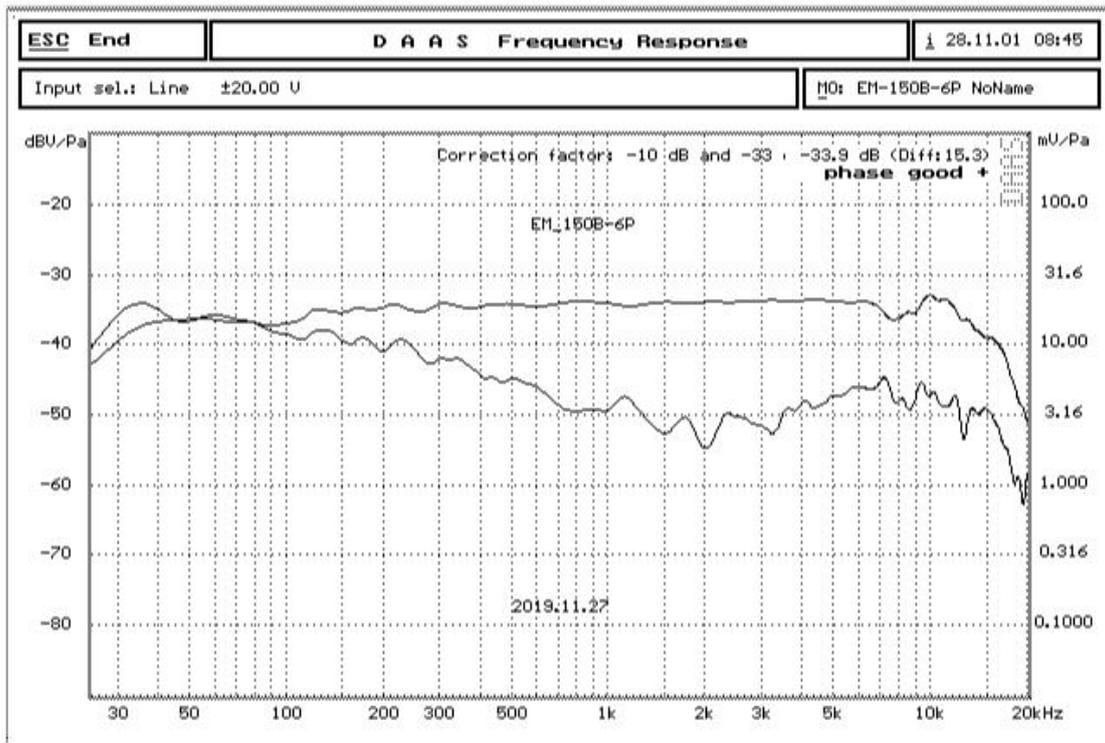
2. Microphone cardioid curve

Digital Wi-Fi Conference System

itC